

CALFED Bay-Delta Program Project Information Form
Watershed Program - Full Proposal Cover Sheet

Attach to the cover of full proposal. All applicants must fill out this Information Form for their proposal. Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.

1. Full Proposal Title: Almaden Reservoir Watershed Restoration Project
Concept Proposal Title/Number: Watershed Restoration as a Tool for Reducing Sedimentation in a

Water Conservation Reservoir Watershed/ #0061

Applicant: Santa Clara Valley Water District

Applicant Name: Stanley M. Williams, CEO (Contact: David Drury)

Applicant Mailing Address: 5750 Almaden Expressway, San Jose, CA 95118

Applicant Telephone: (408) 265-2607 x2721 Applicant Fax: (408) 266-6256

Applicant E-mail: davedrur@scvwd.dst.ca.us

Fiscal Agent Name (if different from above): _____

Fiscal Agent Mailing Address: _____

Fiscal Agent Telephone: _____ Fiscal Agent Fax: _____ Fiscal Agent Email: _____

2. Type of Project: Indicate the primary topic for which you are applying (check only one)

____ Assessment

____ Monitoring

____ Capacity Building

____ Outreach

____ Education

____ Planning

☒ Implementation

____ Research

3. Type of Applicant:

____ Academic Institution/University

____ Non-Profit

____ Federal Agency

____ Private party

____ Joint Venture

____ State Agency

☒ Local Government

____ Tribe or Tribal Government

4. Location (including County):

What major watershed is the project primarily located in:

____ Klamath River (Coast and Cascade Ranges)

____ Sacramento River (Coast, Cascade and Sierra Ranges)

____ San Joaquin River (Coast and Sierra Ranges)

☒ Bay-Delta (Coast and Sierra Ranges)

____ Southern CA (Coast and Sierra Ranges)

____ Tulare Basin (Coast, Sierra and Tehachapi Ranges)

5. Amount of funding requested: \$ 300,000

Cost share/in-kind partners? ☒ Yes ☐ No

Identify partners and amount contributed by each:

Santa Clara Valley Water District: \$538,000

6. Have you received funding from CALFED before? ☐ Yes ☒ No

If yes, identify project title and source of funds:

By signing below, the applicant declares the following:

1. The truthfulness of all representations in their proposal
2. The individual signing this form is entitled to submit the application on behalf of the applicant (if the applicant is an entity or an organization)
3. The person submitting the application has read and understood the conflict of interest and confidentiality discussion in the Watershed Program Proposal Solicitation Package and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent provided in the Proposal Solicitation Package.

Stanley M. Williams, CEO

Printed name of applicant

Signature of applicant

Santa Clara Valley Water District

Almaden Reservoir Watershed Restoration Project

1. Project Description

The Santa Clara Valley Water District's (District) proposed project will restore approximately two acres of potentially pristine aquatic and riparian habitat in the Almaden Reservoir Watershed that will likely support sensitive and endangered species. The habitat in need of restoration is degraded due to historic mining activity that caused excessive sedimentation in the drainage. The two candidate sites for restoration, totaling approximately 2 acres, are areas of previous sediment aggradation that are now being downcut and eroded into the Almaden Reservoir. These sites are located in a northwestern drainage to the reservoir on public land under the management of the Santa Clara County Parks and Recreation System. The County will take responsibility for maintenance upon completion of restoration activities.

A secondary objective of the project is to evaluate the feasibility of watershed restoration as a method to reduce sedimentation in a water supply reservoir. By design the project will include monitoring and assessment components, which will be useful in evaluating the effectiveness of watershed restoration as a replicable tool to reduce sedimentation and improve ecosystem health in the Bay Delta system. Furthermore, because the sediment in question is a result of historic mining operations, the proposed project will have the added benefit of removing a source of heavy metal contamination from the system.

Project Goals:

- Restore 2 acres of aggraded riparian habitat within the CALFED solution area.
- Reduce sedimentation to the Almaden Reservoir.
- Reduce loadings of mercury to the Almaden Reservoir and the San Francisco Bay ecosystem.
- Assess watershed habitat restoration as a means of sedimentation control.
- Engage local community members in citizen monitoring efforts.

Ephemeral drainages with excellent restoration potential and significant volumes of sediment have been targeted for this project. An analysis of existing conditions will be conducted that evaluates such elements as channel morphology, wildlife, wildlife habitat, presence of sensitive species and/or sensitive species habitat, suitability of the site to meet project goals and objectives, geology, geomorphic processes, soils and regulatory requirements to develop an Opportunities and Constraints Report. Geomorphic data collected in the early stages of this project will be used to create a drainage area sediment budget and identify the most appropriate sites for restoration. Only sites that have severely degraded habitat and are a significant source of sediment will be candidates for restoration. The District's routine planning study process will then be used to conduct a stakeholder process to refine the alternatives. The preferred project will then be developed based on technical studies, the Opportunities and Constraints Report, and public, regulatory and resource agency input.

Sites with significant volumes of annual erosion potential have been targeted for restoration such as along Jacques Gulch, upstream of Almaden Reservoir. To prevent erosion and facilitate habitat development, soil stabilization may be necessary. Soil stabilization methods will be evaluated on a site-specific basis, and may include encapsulation, excavation and replacement with imported material, stabilization with structural or biological materials, and contouring. Excavated soils will be disposed according to applicable existing regulations. Stream rehabilitation will likely include measures that are largely biotechnical or “soft” and will avoid the use of rip-rap and other traditional engineering measures to the maximum extent practicable. For example, in-stream materials such as root wads and natural flow deflectors could be strategically placed, along with streambank materials such as fiberschine, erosion control fabric, brush layering, pole plantings, and willow wattles. The primary intent of these biotechnical measures is the simultaneous reduction of streambank erosion and while improving riparian and stream habitat. Such improvement will promote increases in the abundance and diversity of aquatic biota.

Soils in the watershed surrounding the project site exhibit elevated mercury concentrations. Therefore, it is important that the restoration design address a special set of concerns. No marshes or wetlands will be created as a result of the project. These areas can promote conditions for the methylation of mercury. Overall the project will reduce erosion of mercury-bearing soils to reduce loading to local reservoirs, and

Mercury Methylation:

Most of the mercury in the watershed soils is in the form of cinnabar, the mercury ore found in this area. Under certain conditions, cinnabar can be dissolved producing Hg(II), which subsequently can be transformed to methyl mercury via microbially-mediated processes. These processes generally occur near the oxic-anoxic interfaces in stratified waterbodies, sediments, or wetlands.

ultimately the San Francisco Bay. The project will strive to stabilize reaches with steep, unvegetated slopes to minimize erosion. Part of the targeted area has mine wastes such as calcines along the stream banks. These materials within the active channel will be removed and properly disposed of and replaced by clean fill.

Despite the need to account for problems of contaminated soil, please note that this is not a remediation project. The District does not own the land nor is it required to conduct remediation in the drainage. This

is a restoration project to address sedimentation issues in a water conservation reservoir watershed. The sediment is the legacy of historic mining activities that supported the establishment and growth of a new state and fledgling nation, but now threatens to continue to degrade water resources. The consequences of those historic activities are water quality issues that must be resolved through combined partnerships that recognize the multiple benefits of watershed restoration projects.

As an example, the District is currently in the process of restoring aquatic habitat and riparian vegetation in a 1.7-mile reach of Guadalupe Creek in the Guadalupe River Watershed to mitigate for impacts of downstream capital improvements for flood protection. This reach of Guadalupe Creek is similar to the proposed project, as it was a

sediment aggradation area that accumulated contaminated sediments that are now being eroded downstream and act as sources of mercury. The Almaden Reservoir restoration project is not a remediation project, but an indirect benefit of its construction will be reduced loading of bioaccumulative pollutants downstream and to the San Francisco Bay.

The Proposed Project does not request CALFED funding for addressing contaminated sediment. CALFED funding is requested solely for the cost to restore two acres of degraded habitat, and only for the actual restoration construction work. The District will fund the studies and environmental compliance work, design, implementation, construction oversight, and monitoring. The District will also pay for the aspects of the project specific to contaminated sediments, and only includes an estimate of the costs in the proposal to demonstrate the financial commitment to the proposed project.

This project complements two others being proposed for CALFED funding: the Upper Guadalupe River Tributary Monitoring and Pilot Restoration Project Proposal, and the creation of Stewardship Plans for West Valley, Guadalupe, and Lower Peninsula Subwatershed Areas in Santa Clara Basin. If these projects are also funding regular communication will be a critical means of avoiding overlap and duplication of effort.

The Watershed

The Almaden Reservoir sits in the southern portion of the Guadalupe River basin within the eastern foothills of the Santa Cruz Mountains in the CALFED solution area. The reservoir drainage area is heavily wooded and is located in an area of the local mountains that would be considered relatively pristine if it weren't for historic mercury mining operations that occurred for nearly a century and a half. Overall the Guadalupe River basin is 170 square miles in area and spans a range of rural, suburban, and urban land uses.

The Guadalupe River is on the 1998 California 303(d) list and TMDL priority schedule for both mercury contamination from mine tailings and Diazinon. Diazinon contamination is limited to the lower watershed below the Almaden Reservoir and has been classified a low priority for TMDL development. The mercury TMDL is presently in progress under the leadership of the Santa Clara Basin Watershed Management Initiative.

A management plan that addresses sustained capacity, protection of water quality, stream flow augmentation, and conservation is currently being developed for the water conservation reservoir. The results of the demonstration project would provide realistic cost and schedule information, as well as technical data, to assist in the formulation of the management plan. Data measuring the success of the project as a means of reducing sedimentation in the reservoir will be compared to other studies completed or contemplated to evaluate the effectiveness of other alternatives.

Project Elements and Timetable	
Task	Completion (from start date)
Selection of Subcontractors	2 months
Preparation of Environmental Compliance Documentation	5 months
Sedimentation Reduction Feasibility Study Initial Sediment Budget	5 months
Site Preparation/Contaminated Soil Removal	7 months
Restoration Project Design	7 months
Restoration Implementation	10 months
Project Monitoring	27 months
Sediment Reduction Feasibility Study Completed	27 months

2. Qualifications and Readiness to Proceed

A diverse team of agencies, organizations, and consultants supports this project. Their qualifications and roles are explained below. The Santa Clara Valley Water District will act as fiscal agent for this project, and agrees to the Standard Terms and Conditions in Section 8 of the original Proposal Solicitation Package. A pre-selected team of consultants will perform all environmental compliance tasks including permitting and activities to meet CEQA requirements. Descriptions of additional partners are included in Section 8 of this proposal as “other information which could not be addressed elsewhere”.

The proposed restoration sites are on public land under the control of the Santa Clara County Parks and Recreation System. Because of the close relationships among members of the project team and the absence of private landowner issues, assessment, compliance, design, and restoration activities can begin immediately upon the receipt of funding.

The Water District

The Santa Clara Valley Water District is responsible for water supply, flood protection, and watershed management in Santa Clara County, serving 1.7 million residents in 15 cities spread across the 1,300 square mile county. The District conducts watershed restoration projects on a regular basis to mitigate for impact resulting from capital improvement projects for flood protection and water supply.

Potable water is supplied to Santa Clara County by the District from three sources: the South Bay Aqueduct, the San Felipe Project and from underground aquifers. The San Francisco Water Department supplies potable water to portions of the Santa Clara Basin through the Bay Division Pipelines Numbers 3 and 4. Some of this imported water is stored in the aquifers through recharge and direct injection of potable water in twenty locations throughout the basin.

The District is also responsible for conveyance of the 100-year flood flows within the local waterways. As a result, the District constructs flood control projects to protect areas from the 100-year flood flow, while maintaining waterways to ensure that vegetation is managed, sediments that block passage are removed, and to prevent the erosion of existing flood control structures. Overall, the District maintains a total of 700 miles of creeks and rivers within Santa Clara County. The District will be responsible for all CEQA documentation and serve as the liaison with DWR, the default lead agency for this funding.

The Consultant Team

Because of the highly technical nature of this project, the District will contract most of the work to local experts in watershed and stream habitat restoration. Because of their currently established relationship the firms of Tetra Tech, Inc. and EOA, Inc. will be utilized for environmental compliance issues (both CEQA requirements and waste disposal activity tracking), watershed restoration design, and project monitoring and assessment. Additional contractors and subcontractors will be hired for site preparation, construction activities, and waste disposal.

Tetra Tech and EOA's roles in this project are also particularly critical because of the presence of potentially contaminated sediments. The consultant team has the requisite experience with mercury and other heavy metals to ensure that the restoration project will not cause unanticipated harm due to accidental releases during construction or the creation of conditions that promote the methylation of mercury. Representative project descriptions of the consultant team's collaborative activities in the Guadalupe River Basin, the City of San Jose and other watersheds follow.

The Guadalupe Creek Restoration Project

The Guadalupe Creek Restoration Project is designed to improve aquatic habitat in the lower reaches of Guadalupe Creek between Almaden Expressway and Masson Dam. The project has two phases. Under Phase 1, a total of 1,253 linear feet of riparian vegetation was installed along both sides of the creek at the upstream end of the area during the winter of 1998-1999. Under Phase 2, channel modifications are planned to improve habitat for anadromous fish such as steelhead and about 10,791 linear feet of riparian vegetation will be planted along both sides of the creek. The improved creek habitat is intended to provide mitigation credits for a flood control project in downtown San Jose.

Tetra Tech has been asked to address concerns about mercury levels along the project area.

Three sets of samples were collected and analyzed for mercury along the project area of Guadalupe Creek. The first set of samples consisted of soils from the upper flood plain of the creek (referred to as bank soils). Elevated total mercury concentrations were found in the forty bank soil samples from the project area. Tetra Tech conducted a second sampling to obtain information on the concentrations and form of mercury in the water, sediment, and soils along Guadalupe Creek. The form of the mercury influences the potential for conversion to methyl mercury and subsequent uptake by biota. The third set of water samples was collected to assess mercury concentrations during wet-weather conditions.

The Coyote Creek Streamflow Augmentation Pilot Project

The City of San Jose's Environmental Enhancement Program includes streamflow augmentation and wetland creation using recycled water to help restore ecological health in the aquatic environment and to improve water management in the South San Francisco Bay Region. The Coyote Creek Streamflow Augmentation Pilot Project is the first step in testing the feasibility of using recycled water for beneficial environmental uses in the South Bay.

Blackwood Canyon Watershed Restoration Plan, Lake Tahoe

Tetra Tech assessed and evaluated conditions and restoration potential for watershed and fisheries resources in Blackwood Canyon, one of the major watersheds emptying into Lake Tahoe. The project included assessing the stream channel, watershed hydrology, and fisheries and aquatic habitat, conducting field reconnaissance and field surveys of channel morphology and fisheries habitat, and detailing appropriate alternatives to enhance and restore watershed and fisheries conditions in the Blackwood Creek watershed.

Guadalupe River Mercury TMDL

SCVWD, Tetra Tech and EOA are currently gearing up to assist with the development of the mercury TMDL for the Guadalupe River. WMI is taking the lead in this initiative and the District is an important partner. Tetra Tech's team of consultants has developed a conceptual model for mercury cycling in the watershed which will be refined as more information is gathered. Synoptic surveys will be conducted during both wet and dry weather to determine concentrations of mercury and other governing parameters throughout the watershed. Innovative restoration and remediation measures will be identified and assessed to decrease new mercury loadings, reduce methylation within reservoirs, and address sediment loading to the South San Francisco Bay.

3. Budget Narrative

Project costs have been estimated based on previous similar restoration and monitoring efforts. There is a certain amount of uncertainty associated with all restoration projects because costs vary widely with the methods and techniques used. The following is an estimated breakdown according to task.

Project Costs		
Task	CALFED Request	District Match
Selection of Subcontractors and Project Management		\$15,000
Preparation of Environmental Compliance Documentation		\$100,000
Sedimentation Reduction Feasibility Study		\$100,000
Site Preparation/Contaminated Soil Removal		\$300,000
Restoration Project Design	\$50,000	\$2,500
Restoration Implementation	\$250,000	\$2,500
Project Monitoring		\$10,000
Reports and Presentations		\$8,000
Totals:	\$300,000	\$538,000

Selection of Subcontractors and Project Management

This task along with many other aspects of project management will be performed in-kind by the Santa Clara Valley Water District staff. Selection will likely take several days worth of time spread over two months to select and interview potential candidates, develop contracts and agreements, and write up scope of work. 20 hours of staff time has been assessed at \$100 per hour. Additionally participation of District staff at meetings, in review of documents and designs, oversight of contracts and other administrative tasks have been estimated at an additional \$13,000.

Preparation of Environmental Compliance Documentation

This task will be performed under contract with Tetra Tech, Inc. and EOA, Inc. A full breakdown of the \$100,000 cost can be found in the budget spreadsheet. This cost will be in-kind contribution from the District.

Sediment Reduction Feasibility Study

This task will be performed under contract with Tetra Tech, Inc. and EOA, Inc. A full breakdown of the \$100,000 cost can be found in the budget spreadsheet. This cost will be in-kind contribution from the District.

Site Preparation/Contaminated Soil Removal

This task will be subcontracted to an appropriate excavation and hauling company. Costs have been estimated based on previous projects at \$150 per cubic yard of contaminated sediment. An estimated 2000 yards of soil will be removed for disposal; this gives approximately \$300,000 in removal and disposal costs. This includes tipping fees and assumes that disposal in a Class 1 landfill will be required. This cost will be in-kind contribution from the District.

Restoration Project Design

Design costs for stream habitat restoration projects typically run approximately \$50 per linear foot of channel restored. For a two-acre area adjacent to the stream channel, the stream length would be approximately 1000 feet. This gives approximately \$50,000 for total project design (\$25,000 per acre). A full breakdown of cost can be found in the budget spreadsheet.

Restoration Implementation Design

Restoration cost varies greatly with technique. On average costs can be estimated at \$250 per linear foot. Using the above estimate of 1000 feet of channel, construction costs would be \$250,000. A full breakdown of cost can be found in the budget spreadsheet.

Project Monitoring

This task will be performed under the auspices of other District projects such as the Guadalupe Creek Restoration Project and the Mercury TMDL, which is currently getting underway. Costs associated with this aspect of the program are an in-kind contribution from the District and citizen volunteers.

Reports and Presentations

A few hours of time will be required to complete each report and presentation. The District match is an in-kind contribution of their time.

4. Technical Feasibility

Watershed and stream corridor restoration are well-established fields of expertise. As communities began to realize that their water resources were disappearing to urban landscapes, agricultural needs, and even historic contamination, an interest in engineering natural systems was born. While no restoration can be perfect in the creation of pre-settlement conditions or a pristine ecological system, riparian corridor restoration has been shown to have significant impacts on habitat and water quality and can provide the capacity for the resurgence of endangered and threatened species. As an additional benefit, this project strives to assess the capacity of watershed habitat restoration as a tool for the reduction of sedimentation in water supply reservoirs. If successful, this would introduce a new device for watershed improvement into the watershed manager's toolbox.

For this project, all of the impacts of historic mining cannot be removed, but several of the effects can be mitigated. The primary concern is the delivery of sediment to the local reservoir system from upstream sources. The original source of the sediment is a series of large tailings (calcines) piles located near the northwestern restoration site at the head of an ephemeral stream tributary to Jacques Gulch. The sediments have been transported along this stream and Jacques Gulch to Almaden Reservoir, and currently occur as cemented masses and loose deposits in the streambeds and along the stream banks. Secondly, these sources include soils contaminated with heavy metals from historic mining operations, which causes concern about potential bioaccumulation of contaminants in the food chain. The sources of sediment are too large to remove entirely and treatment would be impossible. By minimizing the erosion of soils, the source can be significantly reduced.

In order to reduce the stream's exposure to potential sediment and contaminant sources, the mining related materials within the stream channel must be removed and replaced with clean fill. This clean fill could also act as a sediment source, but with proper streambank stabilization techniques such as bioengineered live crib walls, vegetated gabions, root wads, brush matting and layering, and plantings, coupled with traditional engineered solutions such as rock walls, rip-rap, and appropriate armoring where needed, an engineered stream channel can function naturally. If designed and constructed properly sediment transport regimes will mimic those in nature and net sediment yield will be stabilized. Flow will be routed quickly through the system to avoid long residence times, which could promote methylation of mercury and increase biological uptake.

As a demonstration project of the feasibility of watershed restoration as a method of reducing sedimentation in water supply reservoirs, the project has the capacity to provide new knowledge valuable to all water districts. A sediment monitoring program, which will continue past the completion of restoration activities, has been included in the project. This component will provide data relevant to the efficacy of this method for two water years after the completion of the project. While not ideal this should be enough to

capture some range of natural variability and establish whether or not restoration has caused a net reduction in sediment to the Almaden Reservoir.

As was previously stated the resulting landscape will be part of the Santa Clara County Parks System and will be maintained accordingly by the County.

5. Monitoring

All professionally performed monitoring conducted during this project will be done through existing programs at the District. Tetra Tech has already established Quality Assurance Program Plans (QAPP) for these programs, including the Guadalupe Creek Restoration Project. These documents can be adopted as is or with minimal revisions or “tiered” from in order to save cost and effort of generating new versions for this project.

Because this project is to be used as a demonstration of the value of restoration techniques for sedimentation reduction, data regarding the sediment load to the stream must be taken. Geomorphic characteristics of the immediate drainage area of the restoration site will be analyzed and estimates of the potential sediment load to the system will be made. This will aid in establishing what fraction of the sediment budget can be attributed to the proposed restoration site before project implementation.

Appropriate sediment transport data will be collected both upstream and downstream of the restoration site during pre- and post-treatment conditions. This information will aid in the evaluation of this technique as a means of slowing reservoir infill from upstream sediment sources by establishing estimates of potential loading reductions resulting from watershed restoration. Quality assurance measures will be taken to ensure that all monitoring is done in a consistent and reliable manner.

Construction and implementation monitoring will also be conducted to insure best management practices to prevent accidental release of contaminated sediments to the stream. BMPs and project alternatives will be established in the CEQA documents and may be tiered from the CALFED programmatic EIS/EIR.

Citizen monitoring through the Silicon Valley Toxics Coalition (SVTC) will also play a key role in establishing a sustainable means of long-term data collection. Citizens will be trained appropriately and dispatched to conduct water quality sampling and biological surveys at the restoration sites. These elements will be a critical link to community involvement and stakeholder ownership in these restoration efforts.

6. Scientific Justification

The District has conducted multiple watershed and reservoir planning studies and projects over the last several years. The result of these has provided valuable information for the management of local waterways including the area above the Almaden Reservoir. This area has received particular attention because of the presence of historic mining operations.

The areas in question are clearly heavily eroded. A glance from nearby roads shows stream banks with little vegetation and a channel that has incised through layers of alluvial deposition. The continued erosion of this area degrades habitat and transports sediment downstream. The restoration of the area would have two-fold benefits in the creation of improved habitat and the reduction of sediment transport to the reservoir.

Over the years the New Almaden Mines produced over 1.1 million flasks of mercury or nearly 84 million pounds. Assuming 80% extraction efficiency typical of other similar operations, 17 million pounds of mercury was left behind in tailings piles. This material has been continually eroded and redeposited in the proposed project area. Removing this potential source of contamination makes both practical and scientific sense.

The proposed project is designed to be scientifically sound, with the final result:

- Restoring critical habitat for sensitive and endangered species (the Guadalupe River Watershed provides critical riparian habitat for the Lower South San Francisco Bay region);
- Restoring designated Beneficial Uses to Almaden Reservoir;
- Removal of a significant source of sediment loading and mercury contamination from the system;
- Providing an important Pilot Project for assessing the use of stream restoration as a method for sediment control and pollutant reduction;
- Providing a forum to educate citizens toward watershed and creek stewardship and the benefits of ecological restoration;
- Establishing a monitoring program that will allow for an increased understanding of ecosystem response to reduced mercury loadings; and
- Allowing for the assessment of the feasibility of using small-scale habitat restorations to maintain and enhance populations of sensitive and endangered species.

7. CALFED Objectives

The proposed project directly promotes the third priority as listed under Section 5 of the PSP, as it is primarily intended to restore approximately two acres of degraded habitat in a potentially pristine watershed. The proposed project will also support the other priorities of building community capacity to manage watersheds and refinement of watershed plans by providing a demonstration project that assesses the usefulness of watershed restoration as a means of sediment loading reduction. The information derived from the implementation of this project will assist the District in the development of a reservoir management plan to protect water quality, storage capacity, and maintain cold water flows to support downstream anadromous fish. A successful project will demonstrate the value of restoration as a means to address watershed environmental issues, water supply and water quality issues, and habitat conservation needs, and provide

technical information that supports greater flexibility in assessment and management of water resources.

The proposed project will enhance an already strong partnership between the local community and the CALFED Bay Delta Program. The CALFED program has provided funding essential to ecosystem restoration in the Guadalupe River for the design and installation of fish ladders to improve migration of anadromous cold water fish to spawning and rearing habitat. CALFED has also provided 205(j) funding to the City of San Jose to support development of a watershed management plan for the Santa Clara basin. Funding the proposed project would be the next logical step in a continued partnership with the communities of Santa Clara County to protect and improve multiple water resources objectives, and provide information to refine watershed assessment activities and management plans in the South San Francisco Bay system of the CALFED solution area.

8. Additional Support Material

The Watershed Management Initiative (WMI)

Community involvement will be achieved through the District's public process described above, as well as through the local community collaborative known as the Santa Clara Basin Watershed Management Initiative (WMI). The WMI provides a framework for the stakeholder process to establish criteria for prioritizing potential sites, and to apply the criteria to develop recommendations for site selection.

The WMI is a collaborative effort involving over 30 stakeholder representatives from local, state, and federal government, business communities, environmental groups, and local civic groups. One purpose of the WMI is to promote the restoration and protection of freshwater habitat as part of the goal to preserve beneficial uses of natural resources in the Guadalupe River Watershed.

The proposed project includes a stakeholder process to receive input from all interests. Multiple objectives that will be met include restoration of habitat, reduced sediment build up (water supply capacity preservation), improved water quality, and increased recreational value. The results of the study will foster collaboration among multiple interests in development of the reservoir management plan by providing a demonstration project to evaluate watershed restoration as a tool to protect water resources.

The Silicon Valley Toxics Coalition

(This section adapted from the SVTC website: svtc.org)

The Silicon Valley Toxics Coalition (SVTC) is a critical partner and connection to the community within this project. SVTC serves on the Santa Clara Basin WMI and has the capacity to bring community interests around the table to discuss the proposed project. SVTC is a diverse grassroots coalition that for almost twenty years has engaged in research, advocacy, and organizing associated with environmental and human health problems caused by the rapid growth of the high-tech electronics industry. Their goal in

addressing these problems is to advance environmental sustainability and clean production in the industry and to improve health, promote justice, and ensure democratic decision-making for communities and workers affected by the high-tech revolution in Silicon Valley and other high-tech areas of the US and the world.

The Sustainable Water Program of the SVTC is a multi-year effort to eliminate toxic contaminants such as mercury and PCBs from streams and groundwater and promote conservation, recycling and reuse of water resources in the San Francisco Bay region. See their attached support letter for additional information and their demonstrated commitment to this effort.

Current Program activities of the SVTC:

- The Clean Streams/Clean Bay Community Monitoring Project addresses the problem of mercury and PCB contamination in the San Jose, Guadalupe, and Coyote watersheds and San Francisco Bay.
- CLEAN South Bay Environmental Coordination provides coordination for community groups working to protect the Bay and upland watershed of the Santa Clara Basin from contaminants. CLEAN South Bay also helps local and state agencies craft pollution prevention strategies to address toxic pesticides, sediments and heavy metals that run off into urban waterways.
- The Environmental Justice Steering Committee fights for the inclusion of Environmental Justice principles in California's state and federal water programs. SVTC advocates for greater concern of environmental justice in the CALFED Bay-Delta Program and is working to increase the participation of urban communities of color in the State Watershed Protection Program.
- The Sustainable Silicon Valley Project works to establish indicators for a regional environmental management system to reduce industry's impact on water resources.

Santa Clara Valley Water District: Almaden Reservoir Watershed Restoration Project

CALFED WATERSHED PROGRAM BUDGET AND PROJECT SUMMARY II

Task Description		Completion date	Match funds	CALFED funds	Total
Task 1:	Project Management	Month 27			
	Task 1a: Project manager / project oversight.	Month 27	\$ 6,000	\$ -	\$ 6,000
	Task 1b: Selection of Subcontractors	Month 2	\$ 2,000	\$ -	\$ 2,000
	Task 1c: Project Reporting and Budget Tracking	Month 27	\$ 2,000	\$ -	\$ 2,000
	Task 1d: Project meetings / facilitation (8 meetings)	Month 27	\$ 5,000	\$ -	\$ 5,000
Task Subtotal			\$ 15,000	\$ -	\$ 15,000

Task Product(s): Participation of experienced Program Manager (e.g., implementation of Quality Assurance Program), monthly progress and budget reports, contract administration services, public meetings, meetings support, meeting facilitation, and meeting documentation.

Success Criteria: *Maintain Quality Assurance Objectives identified in project plan; Meet independent technical review standard; Keep CALFED, Project Team, and stakeholders well informed regarding project status (budget and work products); Selection of qualified subcontractors; Maintain involvement of project participants and stakeholders; Meet cost objectives as outlined in cost proposal; and Ensure timely delivery of all work products.*

Santa Clara Valley Water District: Almaden Reservoir Watershed Restoration Project

CALFED WATERSHED PROGRAM BUDGET AND PROJECT SUMMARY II

Task Description		Completion date	Match funds	CALFED funds	Total
Task 2:	Preparation of Environmental Compliance Documentation	Month 5			
Task 2a:	Prepare project concept for technical approaches for Environmental Assessment Pursuant to NEPA / CEQA requirements scoping session to identify issues to be addressed	Month 1	\$ 5,000	\$ -	\$ 5,000
Task 2b:	Define Project Alternatives	Month 1	\$ 5,000	\$ -	\$ 5,000
Task 2c:	Develop Setting Description, Conduct Analysis, and Identify Mitigation Measures	Month 2	\$ 10,000	\$ -	\$ 10,000
Task 2d:	Administrative Draft EA Production	Month 4	\$ 70,000	\$ -	\$ 70,000
Task 2e:	Final EA Production and Distribution	Month 5	\$ 5,000	\$ -	\$ 5,000
Task 2f:		Month 5	\$ 5,000	\$ -	\$ 5,000
Task Subtotal			\$ 100,000	\$ -	\$ 100,000

Task Product(s): The completed EIS/EIR

Success Criteria: *The approval of the EIS/EIR by required agencies and the community stakeholders involved with the project*

Santa Clara Valley Water District: Almaden Reservoir Watershed Restoration Project

CALFED WATERSHED PROGRAM BUDGET AND PROJECT SUMMARY II

Task Description		Completion date	Match funds	CALFED funds	Total
Task 3:	Sediment Reduction Feasibility Study	Month 27			
	<i>Task 3a:</i> Watershed Survey Design	Month 2	\$ 7,500	\$ -	\$ 7,500
	<i>Task 3b:</i> Watershed Erosion / Mass Wasting Survey	Month 4	\$ 35,000	\$ -	\$ 35,000
	<i>Task 3c:</i> Sediment Budget	Month 5	\$ 35,000	\$ -	\$ 35,000
	<i>Task 3d:</i> Identification of Priority Sediment Sources	Month 5	\$ 7,500	\$ -	\$ 7,500
	<i>Task 3e:</i> Technical Memorandum and Maps of Priority Sites	Month 5	\$ 5,000	\$ -	\$ 5,000
	Final Report: Effectiveness of Watershed				
	<i>Task 3f:</i> Restoration on Sediment Reduction	Month 27	\$ 10,000	\$ -	\$ 10,000
<i>Task Subtotal</i>			\$ 100,000	\$ -	\$ 100,000

Task Product(s): pre and post project watershed survey of erosion and mass wasting in project area, sediment budget for proposed restoration sites, site priority list and map, final report on effectiveness of project

Success Criteria: *The successful identification of project sites, the demonstration of the effects of watershed restoration on reservoir sedimentation*

Santa Clara Valley Water District: Almaden Reservoir Watershed Restoration Project

CALFED WATERSHED PROGRAM BUDGET AND PROJECT SUMMARY II

Task Description		Completion date	Match funds	CALFED funds	Total
Task 4:	Site Preparation/Contaminated Soil Removal	Month 7			
Task 4a:	Site Survey	Month 6	\$ 20,000	\$ -	\$ 20,000
Task 4b:	Grading / Soil Removal Plan	Month 6	\$ 15,000	\$ -	\$ 15,000
Task 4c:	Erosion Control Plan	Month 6	\$ 20,000	\$ -	\$ 20,000
Task 4d:	Contaminated Soil Removal and Disposal	Month 7	\$ 240,000	\$ -	\$ 240,000
Task 4e:	Task Documentation	Month 7	\$ 5,000	\$ -	\$ 5,000
Task Subtotal			\$ 300,000	\$ -	\$ 300,000

Task Product(s): Site ready for restoration implementation

Success Criteria: Removal of 2,000 cubic yards of contaminated soil, site preparation complete on time

Santa Clara Valley Water District: Almaden Reservoir Watershed Restoration Project

CALFED WATERSHED PROGRAM BUDGET AND PROJECT SUMMARY II

Task Description		Completion date	Match funds	CALFED funds	Total
Task 5:	Restoration Project Design	Month 7			
	Task 5a: Draft Plan	Month 6	\$ 500	\$ 38,500	\$ 39,000
	Task 5b: Response to Review Comments	Month 6	\$ 1,000	\$ 10,500	\$ 11,500
	Task 5c: Final Restoration Plan	Month 7	\$ 1,000	\$ 1,000	\$ 2,000
Task Subtotal			\$ 2,500	\$ 50,000	\$ 52,500

Task Product(s): Stream restoration design documents, review comments, final project design

Success Criteria: *On time completion of design documents, design approval by stakeholders*

Santa Clara Valley Water District: Almaden Reservoir Watershed Restoration Project

CALFED WATERSHED PROGRAM BUDGET AND PROJECT SUMMARY II

Task Description		Completion date	Match funds	CALFED funds	Total
Task 6:	Restoration Implementation	Month 10			
Task 6a:	Installation of Water Diversion Structure	Month 6	\$ 200	\$ 20,000	\$ 20,200
Task 6b:	Soil Works (stream meander, slope, grading, etc.)	Month 7	\$ 1,000	\$ 70,000	\$ 71,000
Task 6c:	Installation of Structural Restoration Elements	Month 9	\$ 1,000	\$ 100,000	\$ 101,000
Task 6d:	Revegetation of Site	Month 10	\$ 300	\$ 60,000	\$ 60,300
Task Subtotal			\$ 2,500	\$ 250,000	\$ 252,500

Task Product(s): Completed restoration project

Success Criteria: *On time completion of restoration work, establishment of sound ecosystem, establishment of healthy vegetative community, establishment of improved hydraulic behavior*

Santa Clara Valley Water District: Almaden Reservoir Watershed Restoration Project

CALFED WATERSHED PROGRAM BUDGET AND PROJECT SUMMARY II

Task Description		Completion date	Match funds	CALFED funds	Total
Task 7:	Project Monitoring	Month 27			
Task 7a:	Develop project monitoring plan	Month 3	\$ 2,000	\$ -	\$ 2,000
Task 7b:	Coordinate monitoring from contributing projects	Month 27	\$ 6,500	\$ -	\$ 6,500
Task 7c:	Project Monitoring Report	Month 27	\$ 1,500	\$ -	\$ 1,500
Task Subtotal			\$ 10,000	\$ -	\$ 10,000

Task Product(s): monitoring plan, data from identified sites, report including analysis of data

Success Criteria: *quality monitoring plan that identifies key parameters and locations, successful coordination of citizen monitoring program, on time*

Santa Clara Valley Water District: Almaden Reservoir Watershed Restoration Project

CALFED WATERSHED PROGRAM BUDGET AND PROJECT SUMMARY II

Task Description		Completion date	Match funds	CALFED funds	Total
Task 8:	Reporting and Presentations	Month 27			
Task 8a:	Quarterly progress reports: Progress reports on project implementation, including financial status, milestones reached, products completed, and general assessment of overall progress, including problems encountered or anticipated.	Month 27	\$ 4,000	\$ -	\$ 4,000
Task 8b:	Draft final report: Draft report summarizing the project implementation, achievements, product deliveries, financial status. To be sent to the Contract Manager for review and comment.	Month 27	\$ 1,500	\$ -	\$ 1,500
Task 8c:	Final report: Revised report incorporating comments from the Contract Manager and others.	Month 27	\$ 500	\$ -	\$ 500
Task 8d:	Presentations: Delivering at least one final summary presentation to CALFED.	Month 27	\$ 2,000	\$ -	\$ 2,000
Task Subtotal			\$ 8,000	\$ -	\$ 8,000

Task Product(s): above listed reports and presentations

Success Criteria: *positive response from CALFED contract manager, on time report generation, effective demonstration of the successes and challenges of the project*

Santa Clara Valley Water District: Almaden Reservoir Watershed Restoration Project

CALFED WATERSHED PROGRAM BUDGET AND PROJECT SUMMARY II

PROJECT SUMMARY					
Task Description		Completion date	Match funds	CALFED funds	Total
TASK 1	Project Management	Month 27	\$ 15,000	\$ -	\$ 15,000
TASK 2	Preparation of Environmental Compliance Documentation	Month 5	\$ 100,000	\$ -	\$ 100,000
TASK 3	Sedimentation Reduction Feasibility Study	Month 5	\$ 100,000	\$ -	\$ 100,000
TASK 4	Site Preparation / Contaminated Soil Removal	Month 7	\$ 300,000	\$ -	\$ 300,000
TASK 5	Restoration Project Design	Month 7	\$ 2,500	\$ 50,000	\$ 52,500
TASK 6	Restoration Implementation	Month 10	\$ 2,500	\$ 250,000	\$ 252,500
TASK 7	Project Monitoring	Month 27	\$ 10,000	\$ -	\$ 10,000
TASK 8	Reporting and Presentations	Month 27	\$ 8,000	\$ -	\$ 8,000
PROJECT TOTAL			\$ 538,000	\$ 300,000	\$ 838,000

Santa Clara Valley Water District: Almaden Reservoir Watershed Restoration Project

CALFED Watershed Program Budget Summary I

Task Description	Labor Rate*	Hours	Total Labor	Supplies	Materials	Subcontract**	Match	CALFED	Total
Task 1: Project Management							\$ 15,000		\$ 15,000
Task 2: Preparation of Environmental Compliance Documentation						\$ 100,000	\$ 100,000		\$ 100,000
Task 3: Sediment Reduction Feasibility Study						\$ 100,000	\$ 100,000		\$ 100,000
Task 4: Site Preparation and Contaminated Soil Removal						\$ 300,000	\$ 300,000		\$ 300,000
Task 5: Restoration Project Design						\$ 52,500	\$ 2,500	\$ 50,000	\$ 52,500
Task 6: Restoration Implementation						\$ 252,500	\$ 2,500	\$ 250,000	\$ 252,500
Task 7: Project Monitoring						\$ 10,000	\$ 10,000		\$ 10,000
Task 8: Reporting and Presentations							\$ 8,000		\$ 8,000

Totals:

\$23,000	\$ 815,000	\$ 538,000	\$ 300,000	\$ 838,000
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\$838,000

\$838,000

*Provide a benefits/salary percentage here

**Provide a separate itemized budget using this format for subcontracts